

## **ABSTRACT**

A cloud point monitoring device which includes thermal conductive surface, cooler, temperature sensor, detection volume, detection wall unit, fiber optic cables for transmitting light, lighter emitter, light detector, and a data acquisition and control unit. The cloud point monitoring device provides an instrument to accurately measure the cloud point of diesel fuel indicate the approximate level of crystallization in diesel fuel that has been chilled beyond its cloud point and indicate the approximate energy content of diesel fuel. The cloud point monitoring device design allows it to be made small enough to be mounted in a fuel system of a vehicle.